SYSTEM AND METHOD FOR GENERATING AND PROCESSING RESULTS DATA . . .
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FIG. 1

SYSTEM AND METHOD FOR GENERATING AND PROCESSING RESULTS DATA . . .
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FIG. 2

SYSTEM AND METHOD FOR GENERATING AND PROCESSING RESULTS DATA . . .
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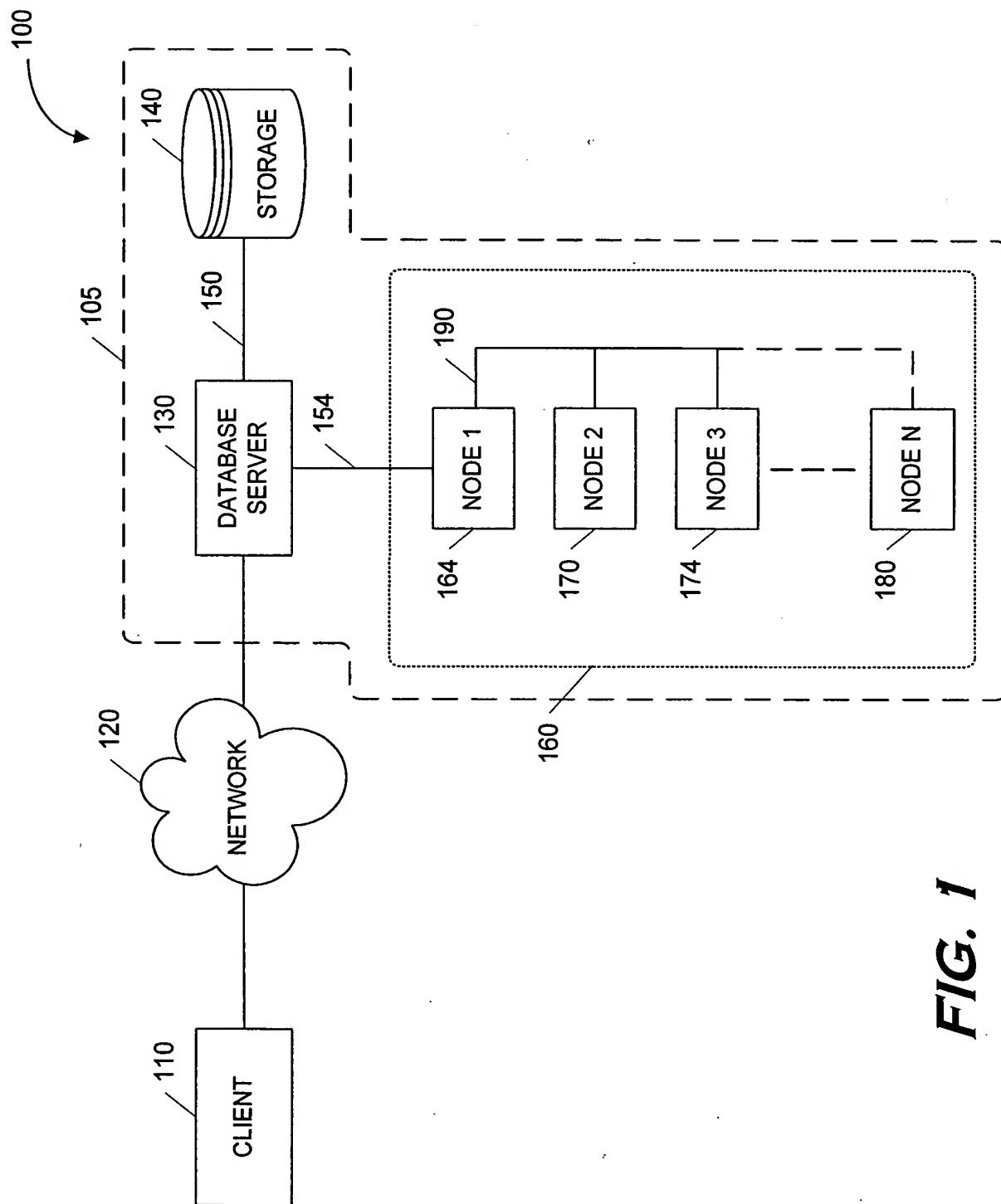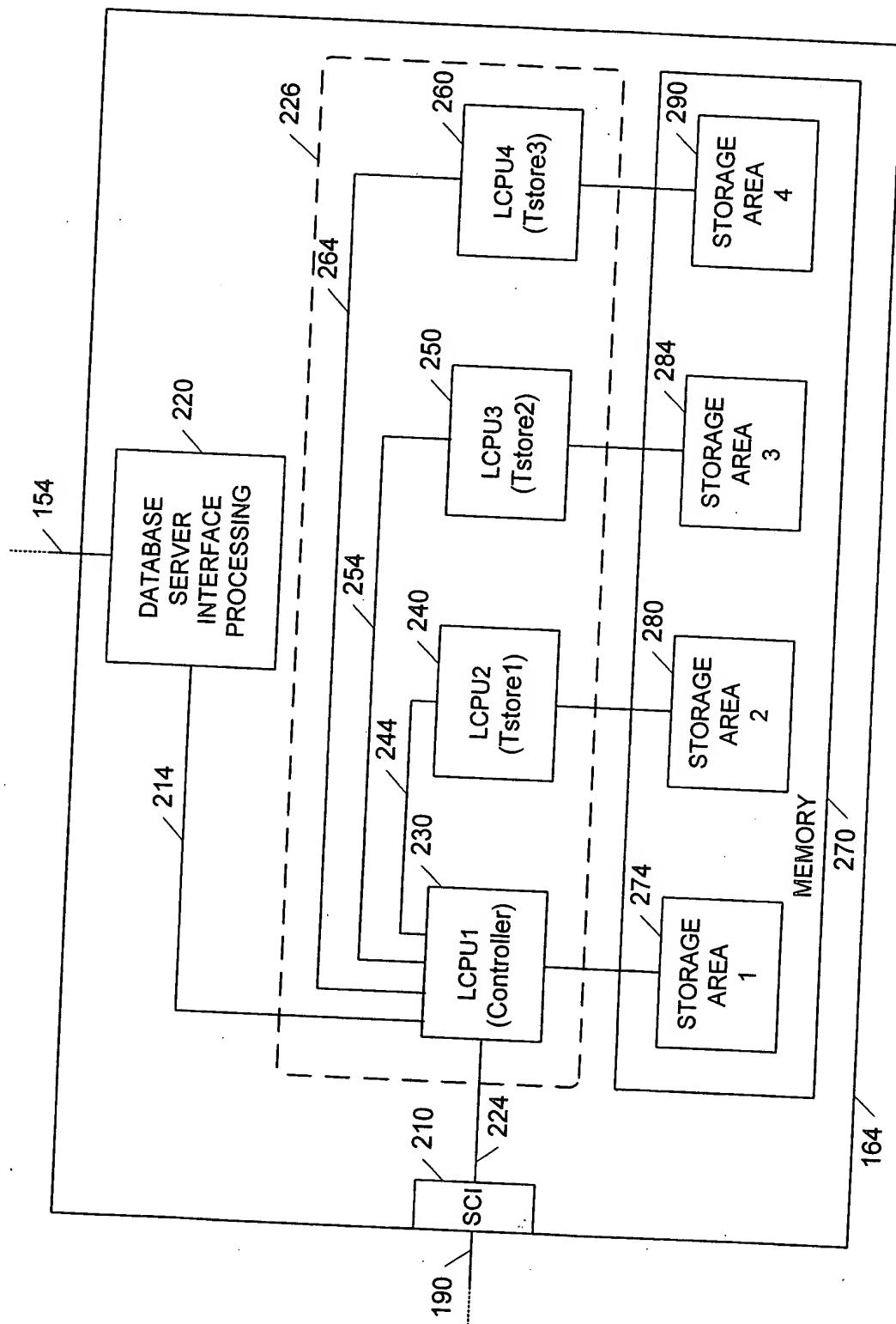Appl. No.: N/A   Atty Docket: XP.002CP3

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FIG. 3

SYSTEM AND METHOD FOR GENERATING AND PROCESSING RESULTS DATA . . .
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TABLE B

480

474 — Table B-DB2

470 — Table B-DB1

478 — Table B-DB3

TABLE A

454 — Table A-DB2

450 — Table A-DB1

458 — Table A-DB3

460

FIG. 4

SYSTEM AND METHOD FOR GENERATING AND PROCESSING RESULTS DATA . . .
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FIG. 5A

FIG. 5B

FIG. 5C

SYSTEM AND METHOD FOR GENERATING AND PROCESSING RESULTS DATA . . .
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TO LCPU2

244

620

FEP

624 TABLE DISTRIBUTION PROCESSING

628 PIVOT TABLE PROCESSING

622 FINAL RESULTS FILE DELIVERY

TO LCPU3

254

640 INTERNODE PROCESSING

644 QUERY DISTRIBUTION PROCESSING

648 JOIN TABLE SEND PROCESSING

TO LCPU4

264

630 RESULTS FILE PROCESSING

632 INTERMEDIATE RESULTS FILE PROCESSING

634 FINAL RESULTS FILE BUILD PROCESSING

638 FINAL RESULTS FILE POST PROCESSING

214

610 SHARED MEMORY ROUTER

614 NODE INTERFACE PROCESSING

618 INTERMEDIATE RESULTS FILE RECEIPT

224

230

FIG. 6

SYSTEM AND METHOD FOR GENERATING AND PROCESSING RESULTS DATA . . .
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FIG. 7

SYSTEM AND METHOD FOR GENERATING AND PROCESSING RESULTS DATA . . .
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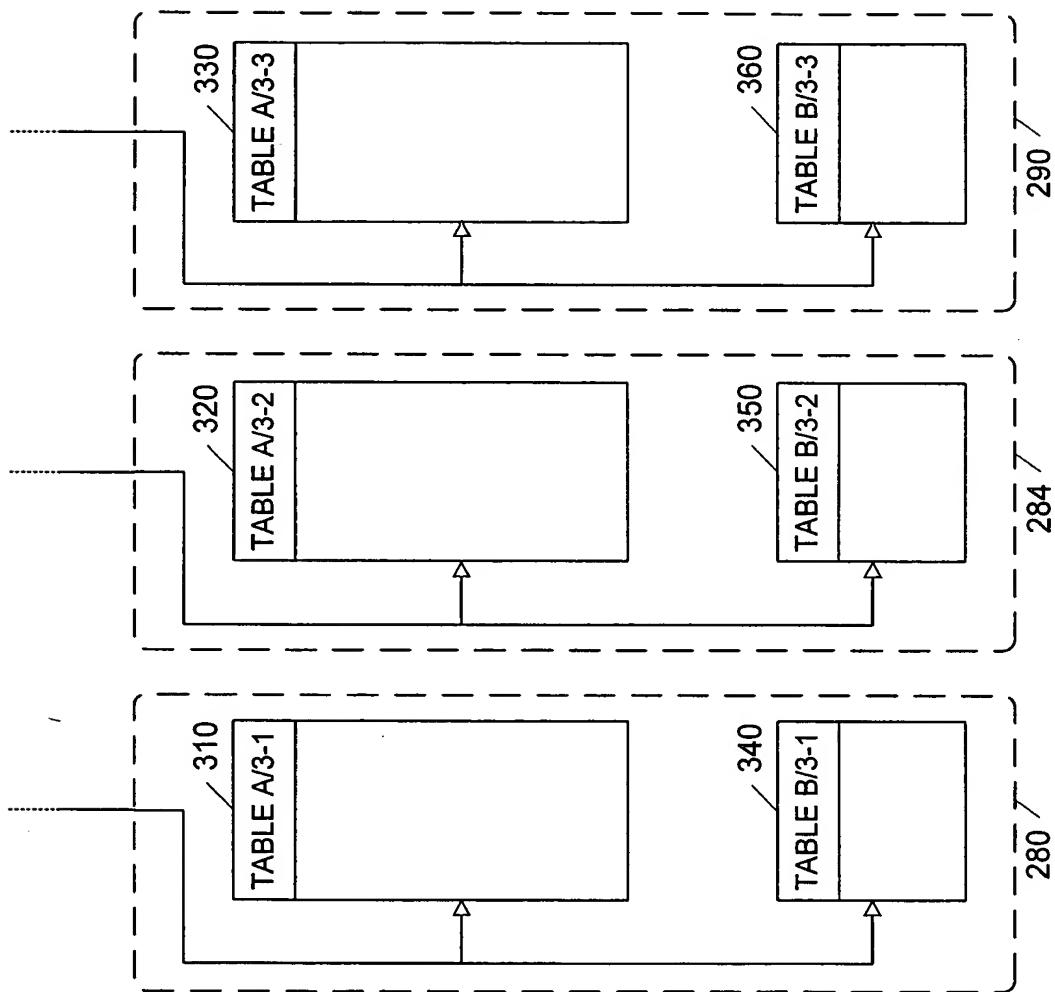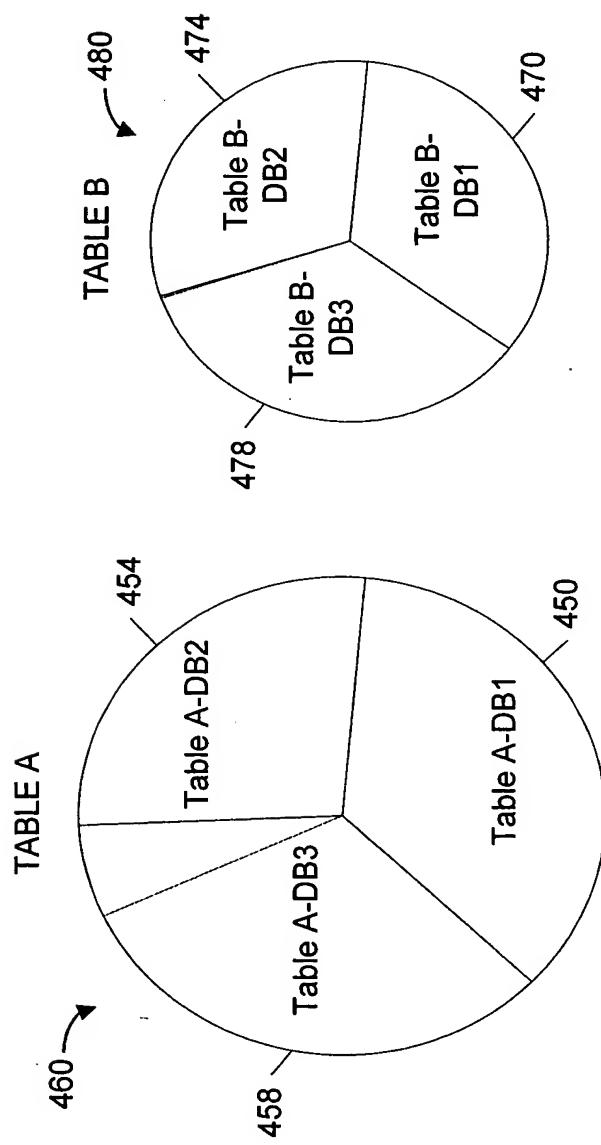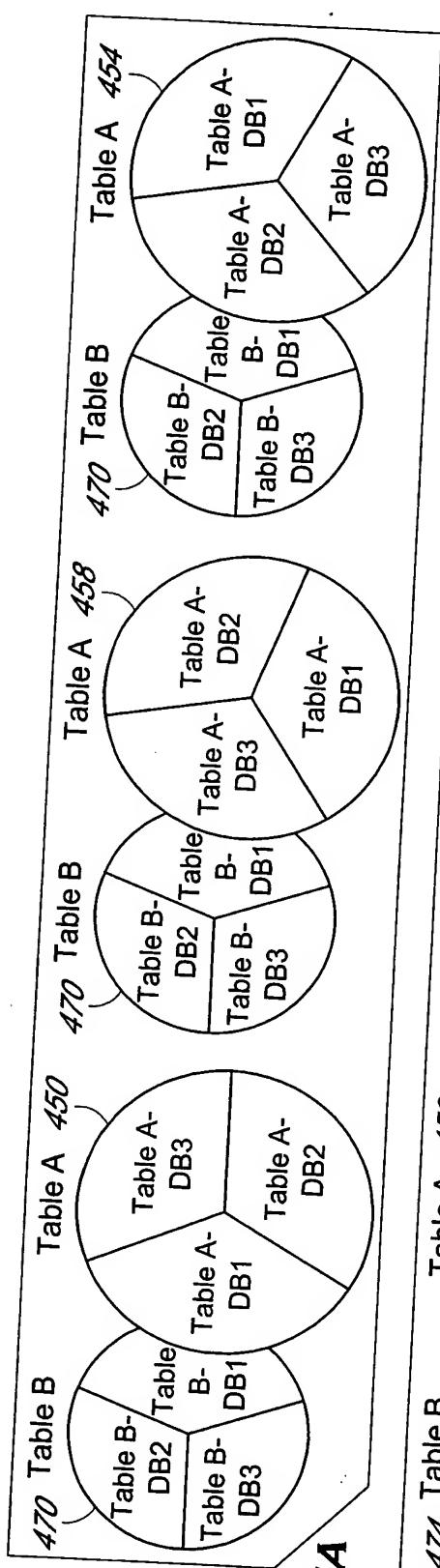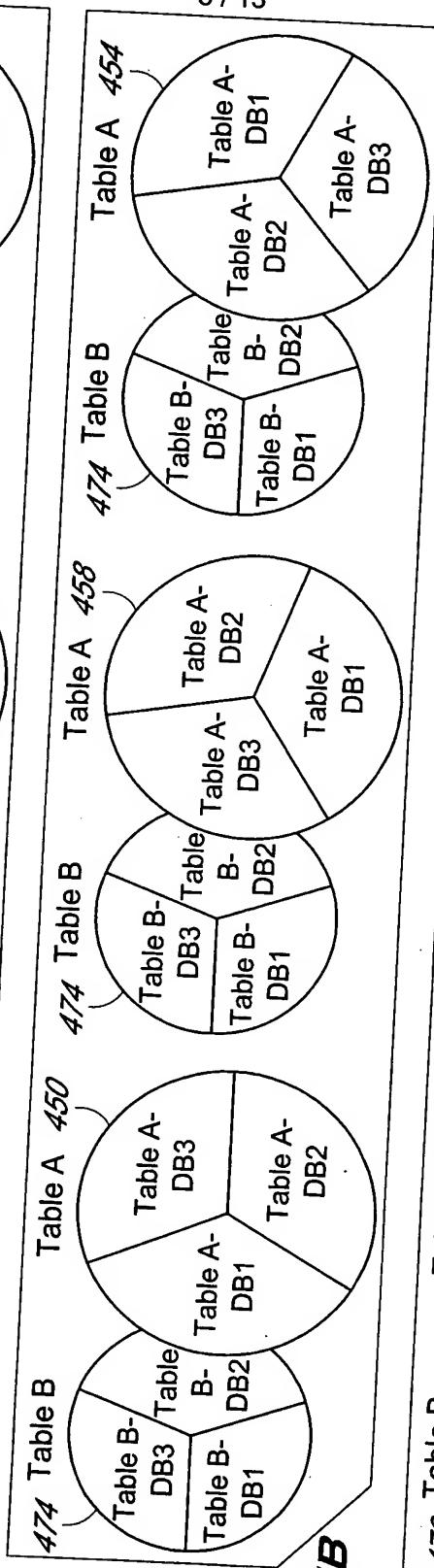Appl. No.: N/A   Atty Docket: XP.002CP3

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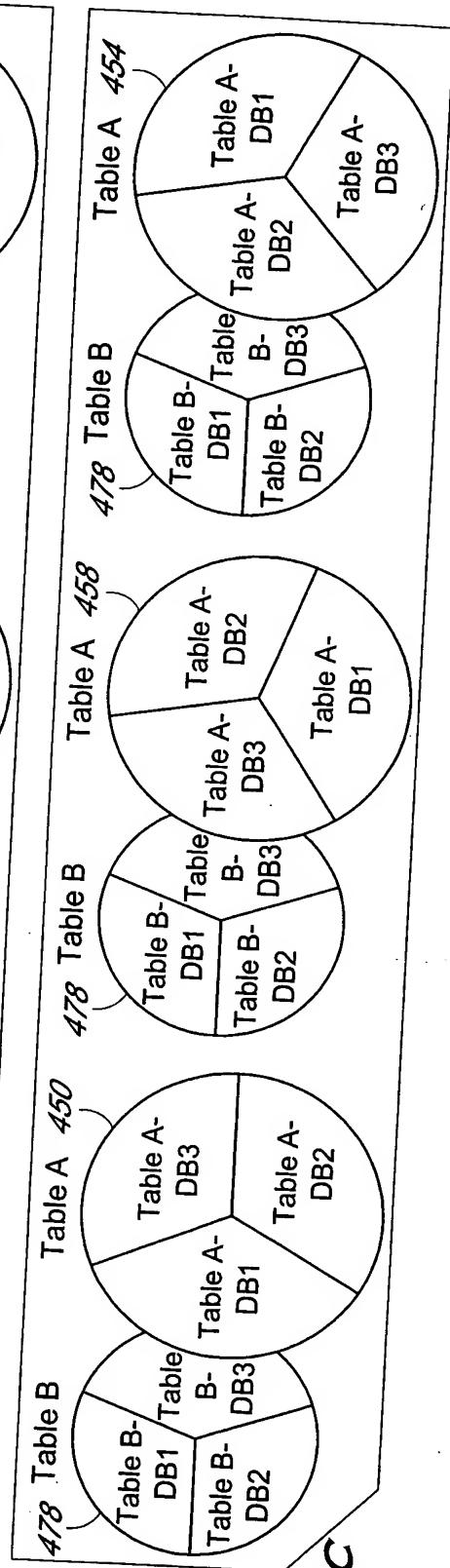
FIG. 8

SYSTEM AND METHOD FOR GENERATING AND PROCESSING RESULTS DATA . . .
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START ~1010

PROCESS
DATABASE
COMMAND ~1020

READ
OR
WRITE
COMMAND? 1030

WRITE

NEW
RECORD
OR UPDATE
RECORD? 1032

NEW

UPDATE

READ

SINGLE
SET OR
MULTIPLE
SET? 1060

DETERMINE
TARGET
NODE 1034

1050

BROADCAST
UPDATE
WRITE
COMMAND TO
ALL NODES

MULTIPLE

SINGLE

PROCESS
MULTIPLE
SET
QUERY 1080

PROCESS
SINGLE
SET
QUERY 1070

FORWARD
WRITE
COMMAND TO
TARGET NODE 1040

END ~1090

1000
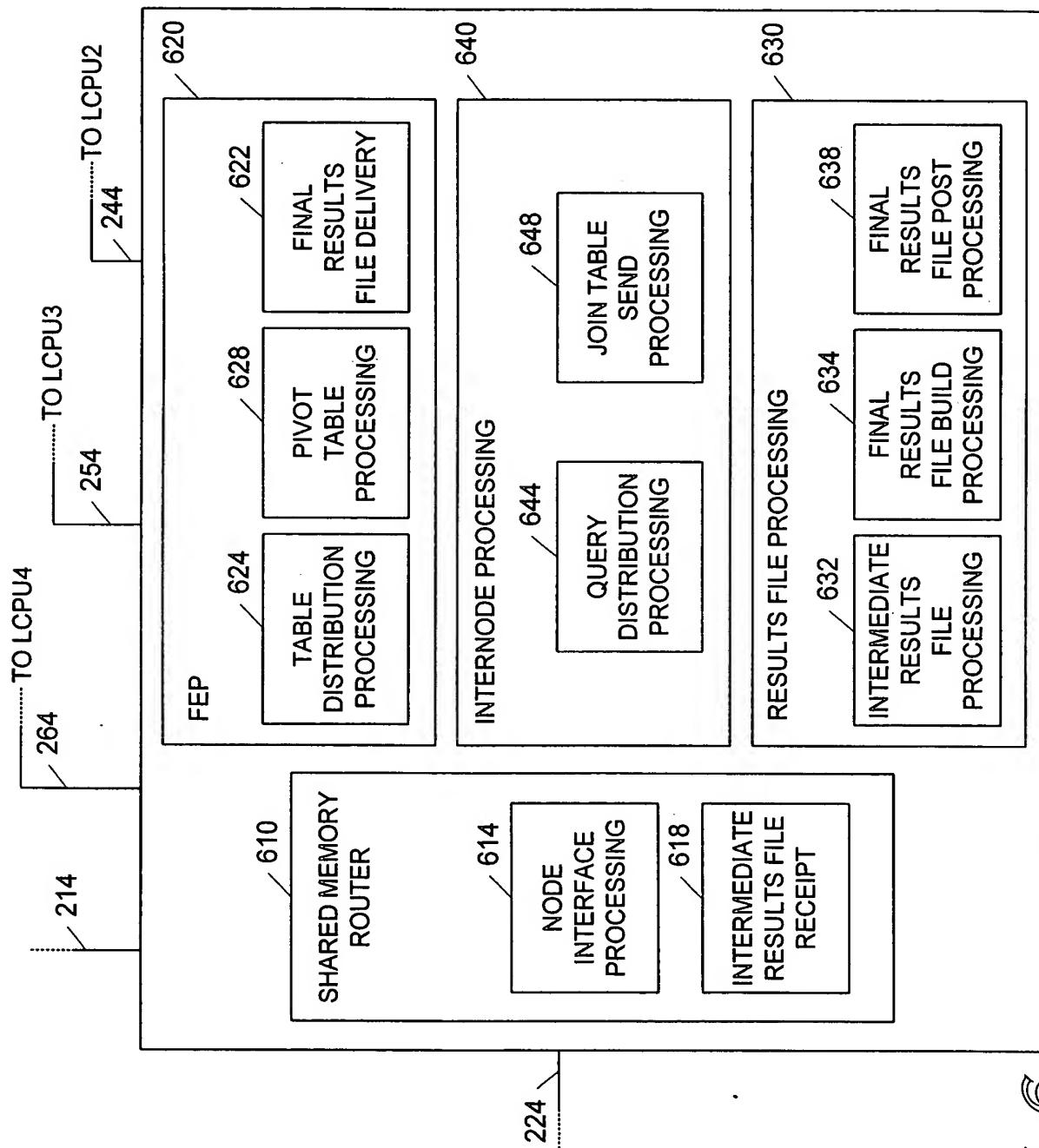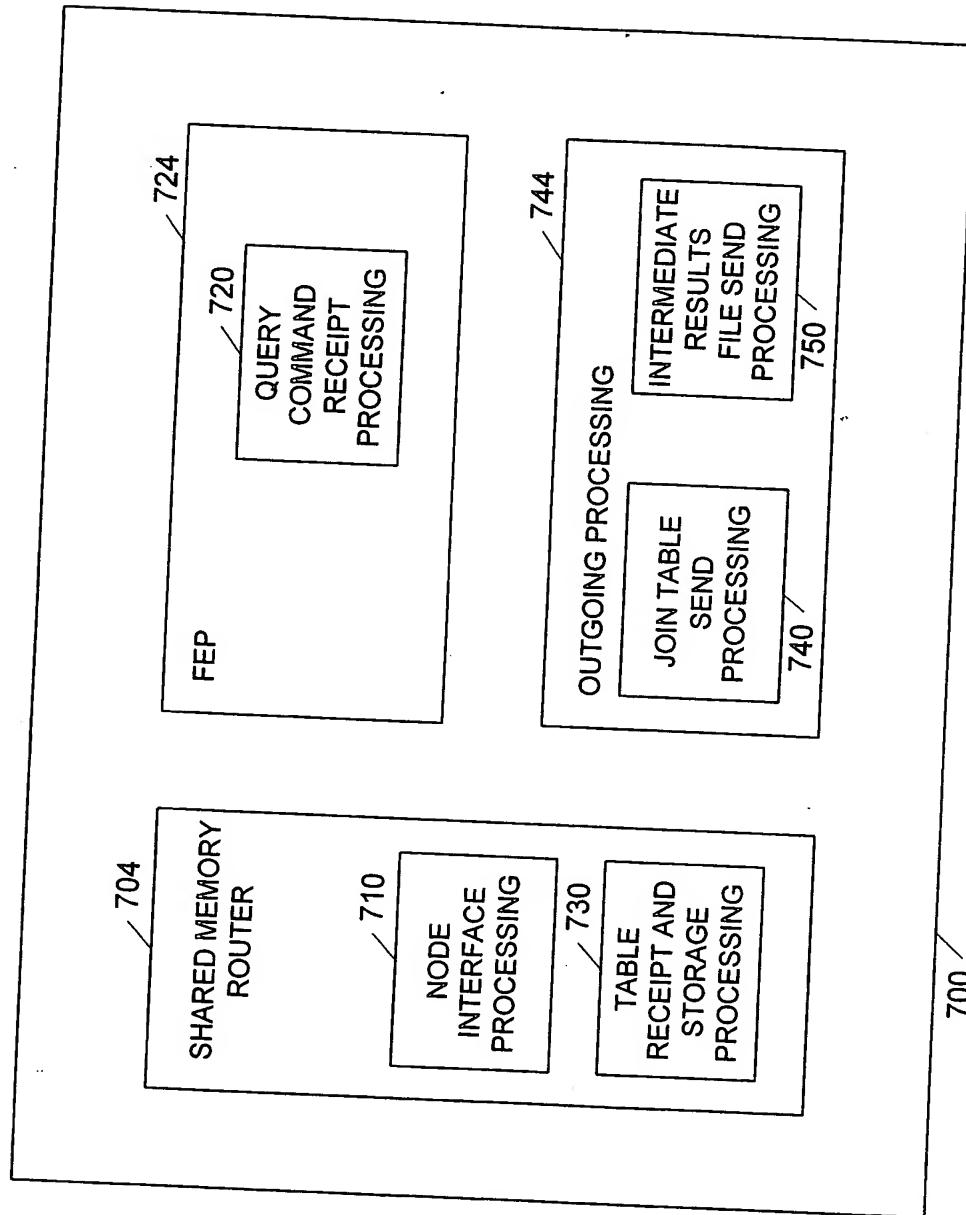
FIG. 9

SYSTEM AND METHOD FOR GENERATING AND PROCESSING RESULTS DATA . . .
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```
                    ( START )──1110
                        │
                        ▼
            ┌───────────────────┐
            │ DETERMINE LAST    │──1120
            │ NODE WRITTEN TO   │
            └───────────────────┘
                        │
                        ▼
            ┌───────────────────┐
            │ INCREMENT NODE    │──1130
            │ INDEX             │
            └───────────────────┘
                        │
                        ▼
                  ╱─────────╲──1140
                 ╱  NODE     ╲
                ╱ INDEX > N?   ╲────Yes─┐
                ╲             ╱          │
                 ╲           ╱           ▼
                  ╲─────────╱    ┌──────────────┐──1150
                      │          │ RESET NODE   │
                     No          │ INDEX TO     │
                      │          │ FIRST NODE   │
                      │          └──────────────┘
                      │                 │
                      │◄────────────────┘
                      ▼
            ┌───────────────────┐
            │ SET TARGET NODE   │──1160
            │ TO VALUE OF NODE  │
            │ INDEX             │
            └───────────────────┘
                        │
                        ▼
                    ( END )──1190
```
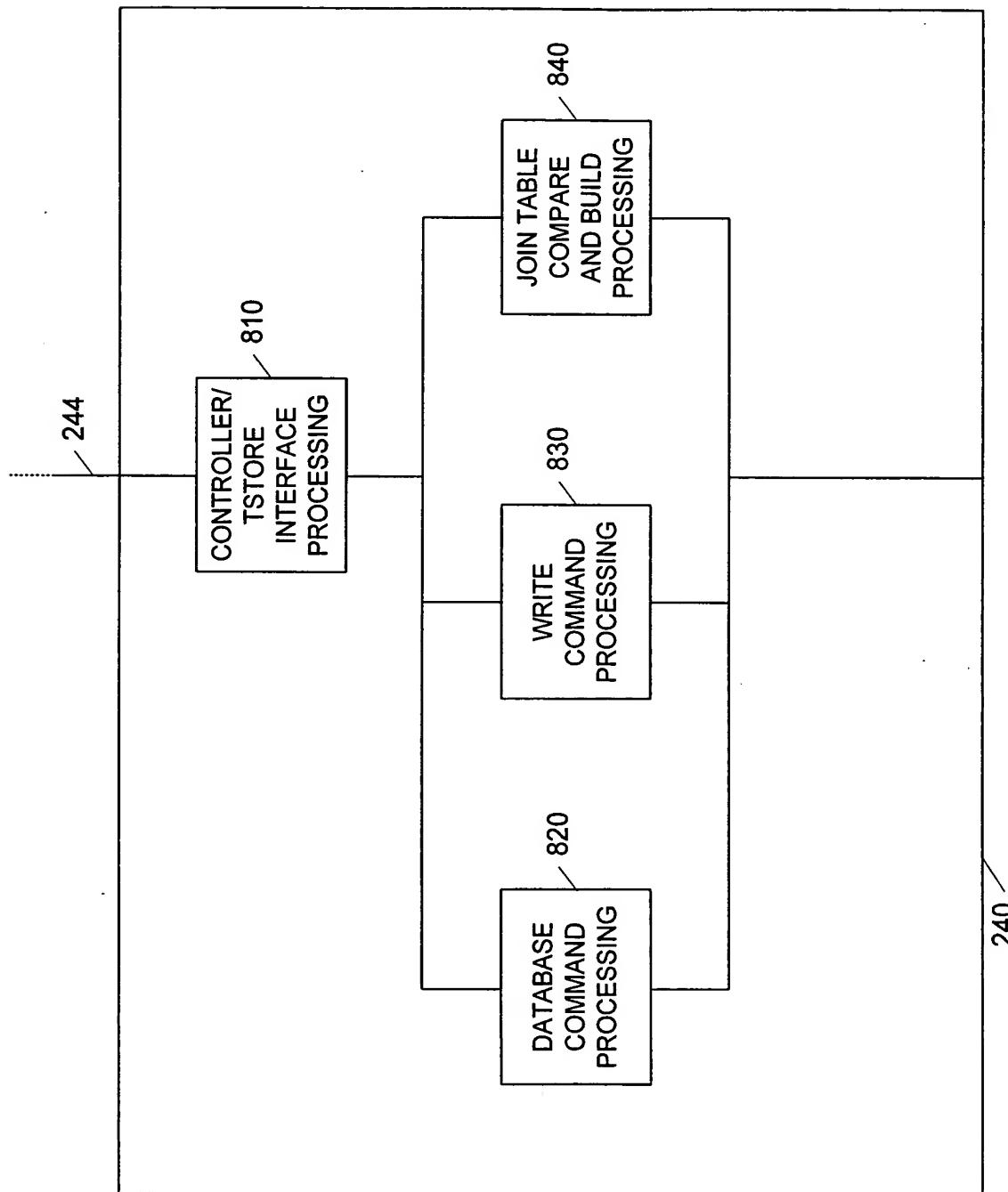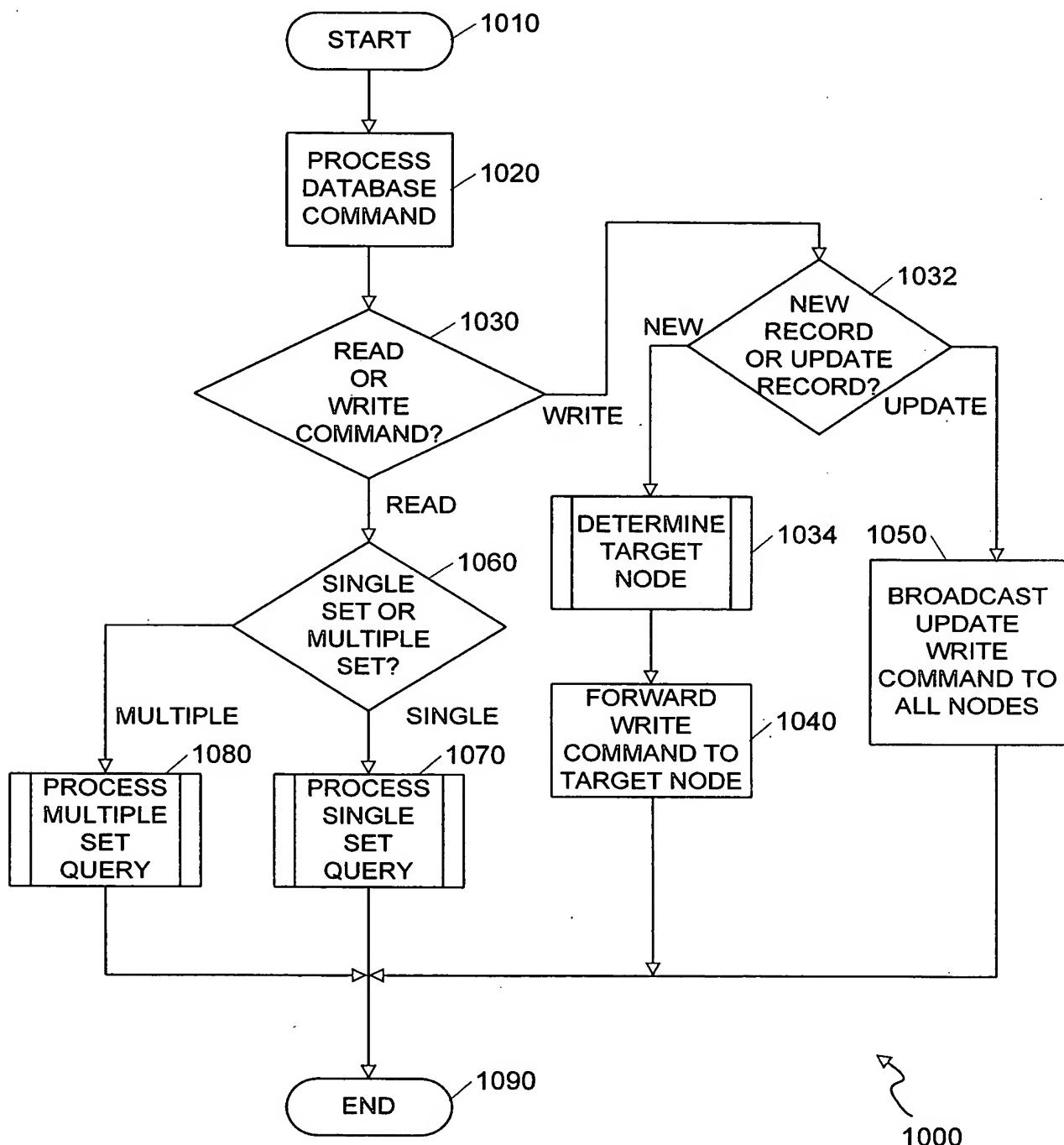
1034

FIG. 10

SYSTEM AND METHOD FOR GENERATING AND PROCESSING RESULTS DATA . . .
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START — 1210

↓

FORWARD QUERY
COMMAND TO
NODE(S) — 1220

↓

EACH NODE
PROCESSES
QUERY COMMAND — 1230

↓

SEND RESULTS
FILES TO PRIMARY
NODE — 1240

↓

GATHER
PROCESSING — 1250

↓

PERFORM
POST
PROCESSING? — 1260

— Yes → RESULTS
FILE POST
PROCESSING — 1270

No ↓

RETURN FINAL
RESULTS FILE AS
SINGLE RESPONSE — 1280

↓

END — 1290
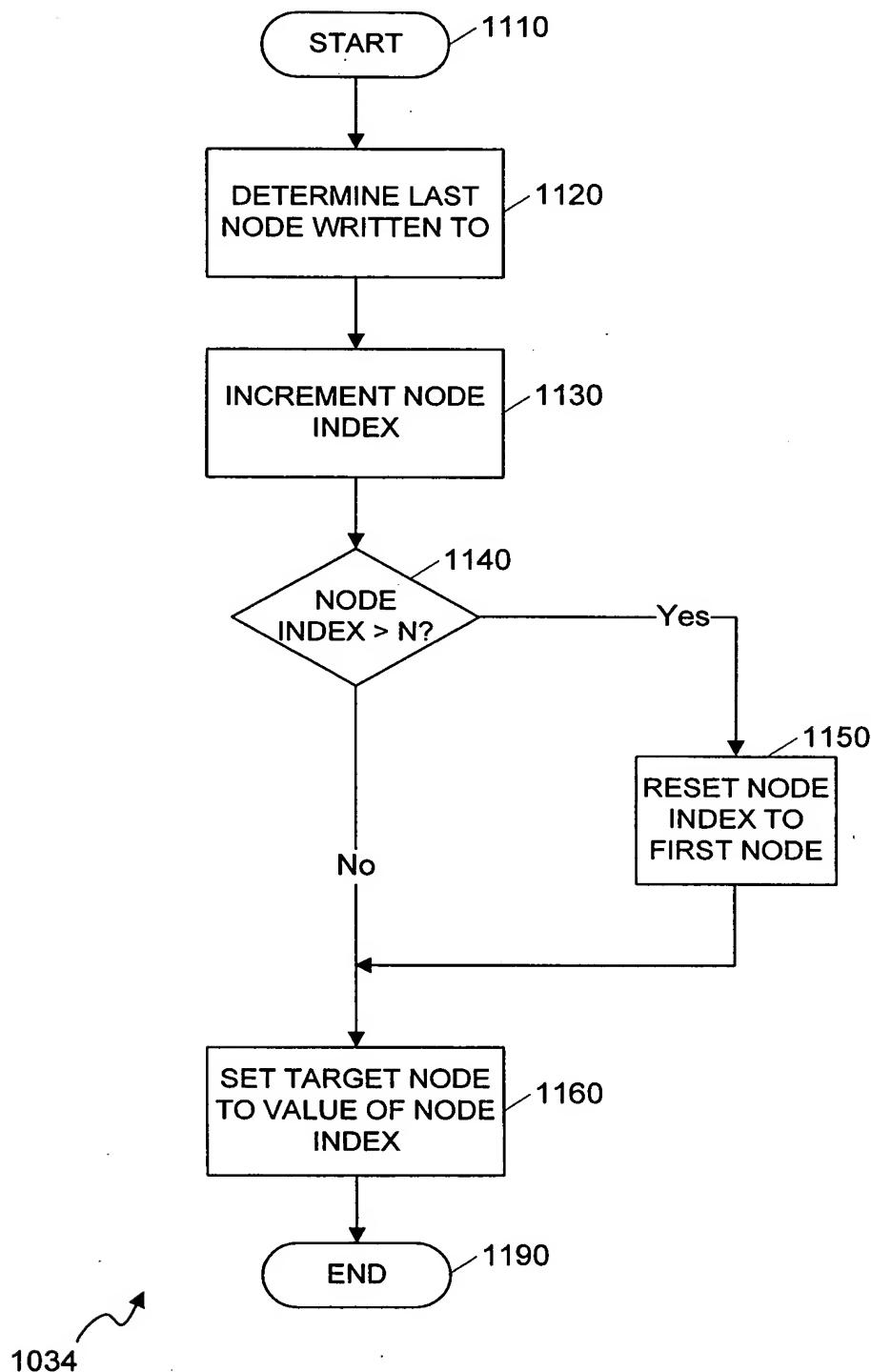
1070

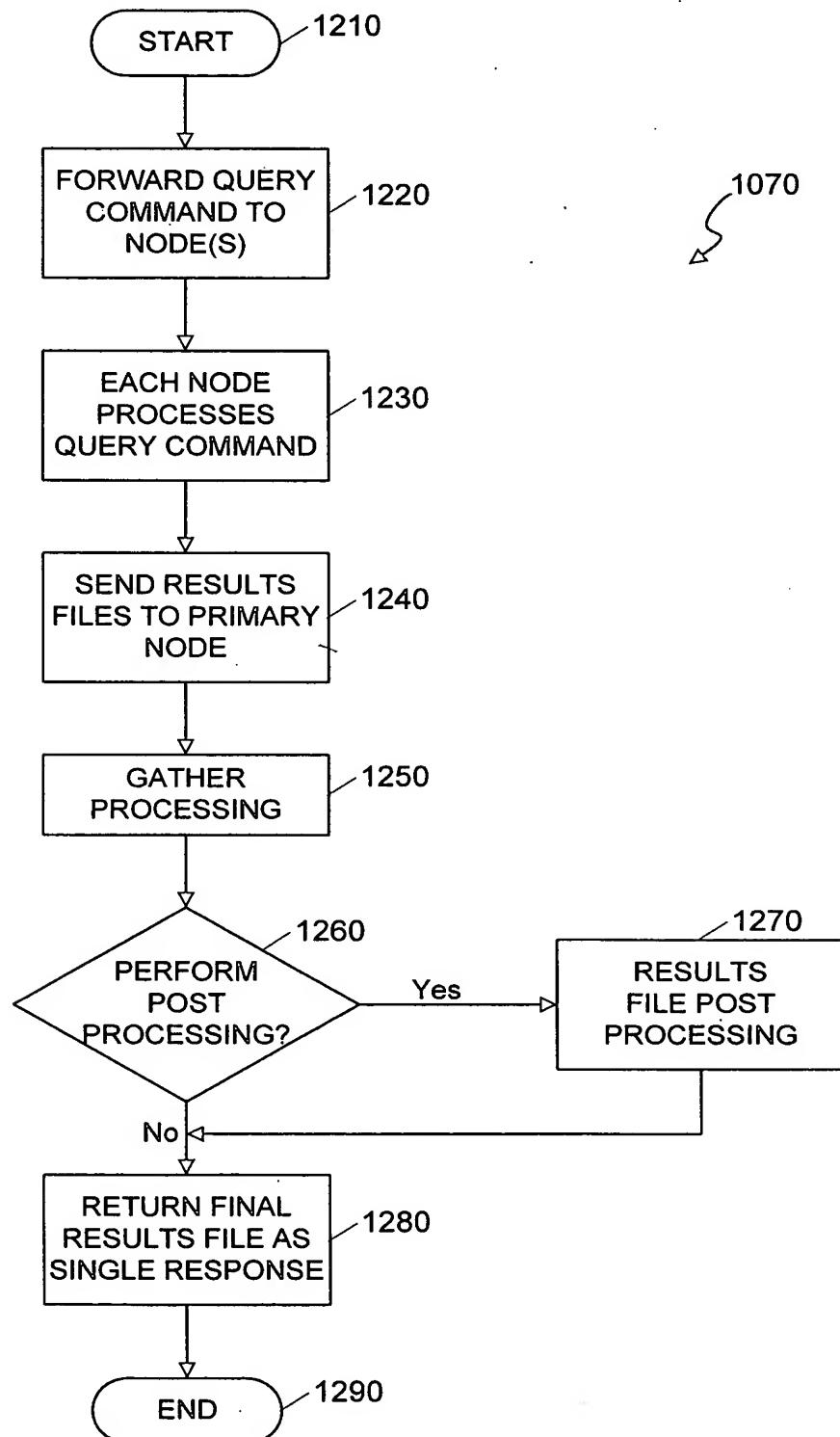FIG. 11

SYSTEM AND METHOD FOR GENERATING AND PROCESSING RESULTS DATA . . .
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START —1310

DETERMINE PIVOT TABLE SELECTION —1320

SEND BROADCAST MESSAGE TO TSTORES SPECIFYING JOIN PARAMETERS —1324

RECEIVE SECONDARY QUERY —1326

BUILD JOIN TABLES TO BE TRANSMITTED —1330

EACH TSTORE SENDS JOIN TABLE TO OTHER TSTORES —1334

COMPARE PIVOT TABLE TO TSTORE'S OWN JOIN TABLE —1340

COMPARE PIVOT TABLE TO JOIN TABLES OF SAME NODE'S OTHER TSTORES —1344

PROCESS OTHER TSTORES' JOIN TABLES —1350

1080

COMPARE PIVOT TABLE TO OTHER TSTORES' JOIN TABLES —1354

EACH TSTORE BUILDS INTERMEDIATE RESULTS FILE —1360

SEND INTERMEDIATE RESULTS FILE TO PRIMARY NODE —1364

GATHER PROCESSING —1370

PERFORM POST PROCESSING? —1374
Yes → FINAL RESULTS FILE PROCESSING —1378
No

RETURN FINAL RESULTS FILE RESPONSE —1380

END —1390

FIG. 12

SYSTEM AND METHOD FOR GENERATING AND PROCESSING RESULTS DATA . . .
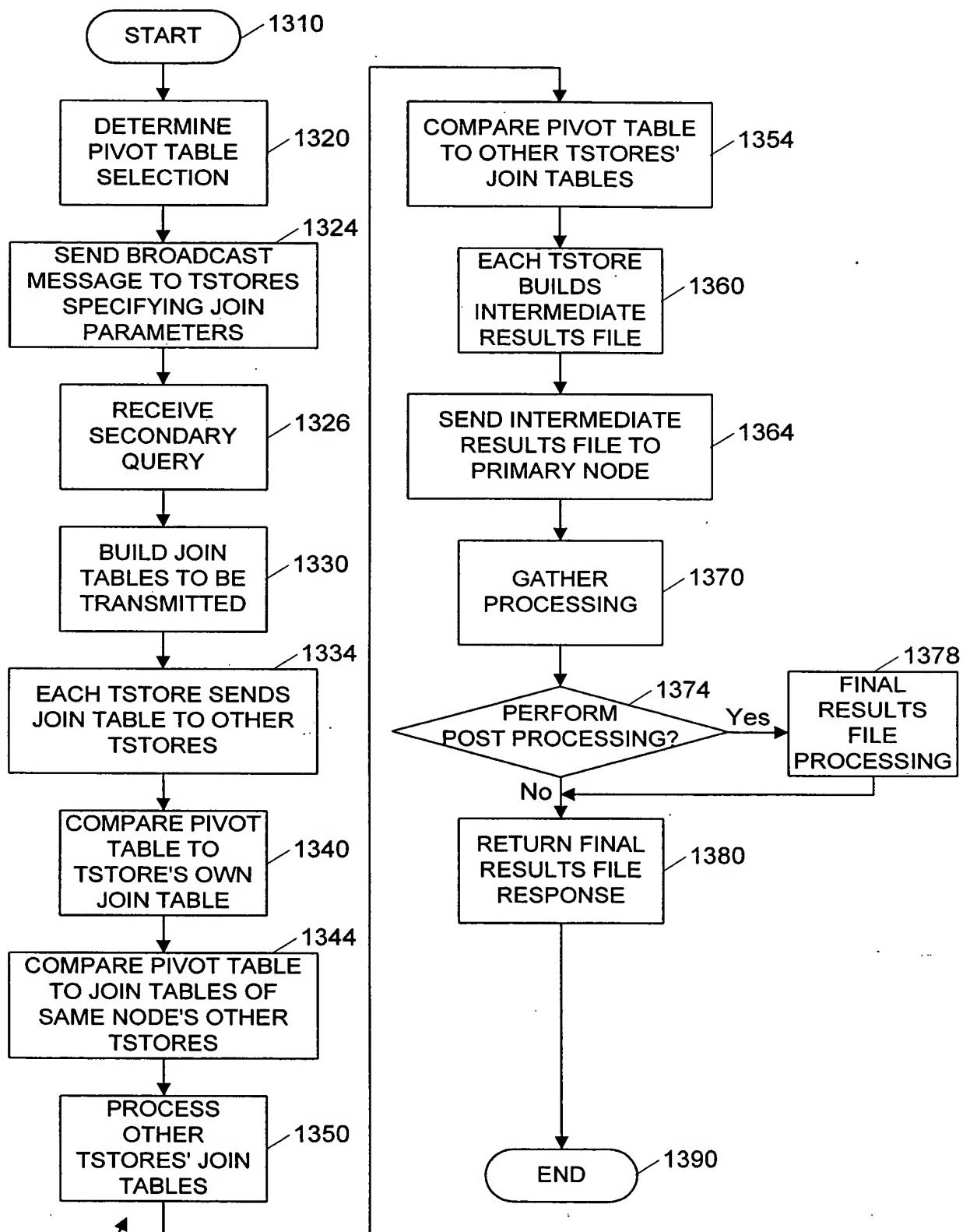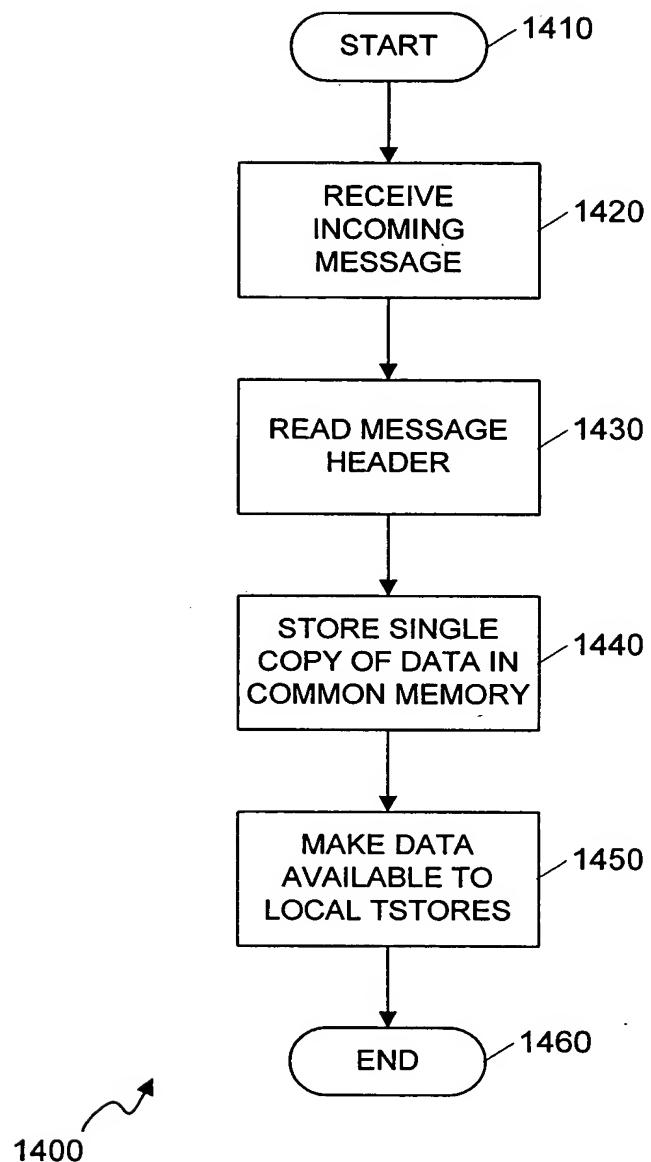Jardin, Cary
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START — 1410

↓

RECEIVE
INCOMING
MESSAGE — 1420

↓

READ MESSAGE
HEADER — 1430

↓

STORE SINGLE
COPY OF DATA IN
COMMON MEMORY — 1440

↓

MAKE DATA
AVAILABLE TO
LOCAL TSTORES — 1450

↓

END — 1460

1400

FIG. 13